

REMARKS

Claims 87 to 107 are pending in the application, of which 87, 93 and 99 are independent.

Claims 87 to 90, 93 to 96 and 99 to 102 were rejected under 35 U.S.C. §102(e) over U.S. Patent No. 6,351,320 (Shin). Claims 91, 92, 97 to 98, 103 and 104 were rejected under 35 U.S.C. §103(a) over Shin.

The present invention concerns a printer driver which performs processing of image data to be transmitted to a printer. To do so, the printer driver loads a set of tables corresponding to designated plural conditions from a database using a second table which specifies the set of tables corresponding to the plural conditions. Information from the loaded tables is then used by the printer driver to process an image to be transmitted to the printer. The types of conditions include paper type, quantization method and print quality. The types of tables that may be included in the database include color correction tables, color conversion tables, gray scale correction tables, dither matrix tables and margin tables.

One feature of the present invention is that the set of tables corresponding to the designated plural conditions are loaded from the database by referring to the second table. The image data is then processed using the loaded set of tables. Accordingly, the loaded set of tables corresponding to the plural conditions can be retrieved during a single search operation instead of multiple search operations for each of the plural conditions.

The set of tables and second table correspond to LUT2 and LUT1, respectively, as shown in Figs. 2 and 3. Additionally, the structure of LUT2 is shown in Figs. 4 and 5.

Referring specifically to the claims, amended independent claim 87 is directed to a computer program product having a computer readable medium storing a printer driver program which performs processing of image data to be transmitted to a printer. The program comprises a database including plural first tables and a program module for loading first tables corresponding to designated plural conditions from said database referring to a second table which specifies the first tables corresponding to plural conditions, and performing processing of image data using the loaded first tables.

Amended dependent claims 88 to 92 are directed to the computer program product where color correction tables, color conversion tables, gray scale correction tables, dither matrix tables and margin tables may be included in the database.

In contrast, Shin discloses a printer driver converting the Red Green Blue (RGB) color system into the Yellow Magenta Cyan (YMC) color system using LUTs. However, Shin fails to disclose second tables specifying plural first tables corresponding to plural conditions. Thus, a printer driver according to Shin may use only one table in the LUT1 to LUT4 to convert RGB color into CMY color in accordance with a type and media instead of plural tables corresponding to plural conditions.

U.S. Patent No. 5,739,841 (Ng) discloses a gray level printing apparatus having a first LUT and a second LUT. The first LUT is a BIN table for associating recording elements to bin values. The second LUT associates bin values with values for correcting exposure. The printing apparatus corrects non-uniformities in emission characteristics of the recording elements by associating a recording element to a value for correcting exposure using the first and second LUTs. However, the LUTs are not utilized for processing an image but for correcting the characteristics of the recording elements.

Therefore, the purpose of the LUTs in Ng differs from that of the claimed invention. In addition, only one correction value can be obtained for a recording element in Ng. In comparison, the present invention provides for plural tables to be obtained for plural conditions.

In light of the foregoing, Applicants submit the art of record is not seen to disclose or to suggest, either alone or in combination, the features of the claimed invention.

No other matters having been raised, the entire application is believed to be in condition for allowance and such action is respectfully requested at the Examiner's earliest convenience.

Applicants' undersigned attorney may be reached in our Costa Mesa, CA office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



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